#include <stdio.h>

/*
 * Purpose: To print a character many times
 * Input parameters:
 *   times: The number of times the character is to be printed
 *   ch:    The character to be printed
 * Return:
 *   void
 */
void printChars(int times, char ch)
{
    int j;
    j=0;
    while ( j < times)
    {
        printf("%c", ch);
        j = j + 1;
    }
    return;
}

int main()
{
    char ch1; /* Character to use for printing the square */
    int side_length;
    int row_length;
    int i; /* counter variables */
    printf("Please enter the character you want to fill the square with :\n");
    scanf("%c", &ch1);
    printf("Please enter the side length of the square :\n");
    scanf("%d", &side_length);
    /* Normal Square */
    i = 0;
    while ( i < side_length)
    {
        printChars(side_length, ch1);
        printf("\n");
        i = i + 1;
    }
    /* Triangle */
    row_length = 1;
    while ( row_length <= side_length)
    {
        printChars(row_length, ch1);
        printf("\n");
        row_length = row_length + 1;
    }
    /* Hollow Square */
    printChars(side_length, ch1);
    printf("\n");
    i = 0;
    while ( i < side_length - 2)
    {
        printf("%c", ch1);
        printChars(side_length - 2, ' ');
        printf("%c", ch1);
        printf("\n");
        i = i + 1;
    }
    printChars(side_length, ch1);
    printf("\n");
return 0;
}